

Defining the informationist: a case study from the Frederick L. Ehrman Medical Library

In September 2004, I became an informationist for the Frederick L. Ehrman Medical Library, New York University (NYU) School of Medicine. My offer letter was explicit about this: "You will work. . . as an Informationist to establish a training program for 'Enhancing Medical and Public Health Capabilities in Times of Crisis'" [1]. At a time in the development of the profession where the term "informationist" is heavily freighted with ambiguity, I have been given a valuable opportunity to understand what such a position might entail.

Funded through a grant from the Department of Homeland Security, this project is a joint endeavor of the NYU School of Medicine and College of Dentistry. It aims to increase the pool of first responders available in the wake of terrorist attacks and other catastrophic events. Most specifically, the grant seeks to build a cadre of dentists capable of contributing to this response. Dental professionals have both the skills and facilities to care for individuals who suffer modest direct effects in the wake of such events.

NYU has developed the Center for Health Information Preparedness (CHIP) to facilitate this project. The CHIP Website serves as the portal to all project materials [2] and features a collection of electronic textbook chapters about various topics in preparedness and disaster medicine, developed by experts at NYU as well as colleagues recruited from other institutions. At the time of this writing, members of the grant team are in the process of developing a version of this content for display on mobile devices.

Prior to my arrival at NYU, the efforts of Taryn Resnick, a library science student at Queens College, City University of New York, provided a foundation for my work. Resnick is now a resources management librarian at the Medical Sciences Library of Texas A&M

University. While at NYU, she completed extensive literature reviews on behalf of the authors of various textbook chapters. Resnick utilized the citation-tracking capability of the Web of Science to develop a "'Most Cited' Literature Series" about numerous facets of research regarding bioterrorism, and this series remains a featured resource in the Main Menu of the CHIP Web page. Resnick also established a protocol for obtaining necessary copyright permissions for the electronic textbook chapters.

Soon after beginning my tenure, I became one of the administrators for the CHIP Website. In this capacity, I post an article per week about a topic of interest to the preparedness medicine community. Postings include the abstract of the article and a link to the full text. In the summer of 2005, these postings began to be offered as a really simple syndication (RSS) feed. As an adjunct to this work, I occasionally notify the grant team about relevant current developments.

The CHIP Website links to a toolkit that I prepared of selected resources on disaster preparedness and bioterrorism [3]. The toolkit is part of the library's collection of toolkits, which are "brief, focused, and organized lists of web links that focus on a particular topic" [4]. This particular toolkit provides links to databases, electronic journals and books, Websites, and email discussion lists. It also includes citations to print materials in the areas of disaster preparedness and bioterrorism from the collections of both the medical and dental libraries.

The toolkit is one of the resources featured in the library course, "Disaster Preparedness and Bioterrorism Resources." Offered for the first time in the spring 2005 semester, this class is now part of the library's calendar of classes, and handouts for the class are available from the library's home page [5]. I developed and taught the course

with Marc M. Triola, chief, Section of Medical Informatics, and assistant professor in the Department of Medicine at the NYU School of Medicine. Triola is also an associate director of CHIP [6].

In addition to instructional activities and Website content development, I have been engaged in a research project with Triola; Karen Brewer, AHIP, director of the Ehrman Medical Library; and Robert S. Holzman, professor of medicine and environmental medicine at NYU [7]. Brewer and Holzman are also members of the grant committee. We have conducted a bibliometric analysis of citation patterns pertaining to bioterrorism in the wake of the 2001 anthrax attacks, comparing them to previous events that galvanized the attention of the medical and public health communities as a means of analyzing the frequently expressed viewpoint that the focus on bioterrorism is unwarranted and without precedent [8]. I presented the results of this research at the 2005 meeting of the American Public Health Association [9].

My participation on the grant committee has been rewarding. I have formed relationships that extend beyond the committee's work; as one example, I am a member of the medical informatics journal club that Triola convened. Also, additional School of Medicine faculty members are envisioning a similar role for librarians in their projects as the one I have played for CHIP. This is an important validation of the role of the library in a thriving academic health sciences center.

As with all endeavors, my work has not been without challenges. The main difficulty has been a lack of definition about my responsibilities for the grant, which is at odds with library norms of structure and predictability. This challenge has been a blessing in disguise, however, because it has provided the opening to undertake all of the projects described above.

As I reflect on my activities on behalf of the grant, a pesky thought keeps recurring: nothing I have done qualifies me as an "informationist." My work on the research project is an example of evidence-based librarianship, and my complete portfolio is the work of a project-based library liaison and, thus, an extension of the more common departmental liaison model. Although I am proud of these efforts, my official position title reflects the continuing challenge the profession faces in defining the skills necessary to be considered an informationist. The terminology itself is not settled, which indicates the broader challenge in understanding this concept. The Medical Library Association (MLA) has shifted from the concept of an "informationist" to that of an "information specialist in context" (ISIC) [10]. Even so, informationist remains the more commonly used term among librarians.

Frank Davidoff and Valerie Florance first presented the concept of the informationist in 2000, in a seminal editorial published in the *Annals of Internal Medicine* [11]. As Davidoff and Florance noted, "The medical profession falls far short in its efforts to make the critical link between the huge body of information hidden away in the medical literature and the information needed at the point of care." They lauded the experience of clinical librarian programs, which have sought since the 1970s to bridge the gap between evidence and clinical practice. They lamented the relatively small penetration of such programs in clinical care centers and blamed this situation on poor allocation of health care resources.

Davidoff and Florance then proposed the concept of the informationist as a way to harness the benefits of the clinical librarianship model in a way that would provide financial sustainability and professional prestige. Crucially, they called for a program "to train, *credential*, and pay for the services of information specialists" (emphasis mine). A short time later, they emphasized that "all who become in-

formationists will need to master a standard curriculum" and again argued for an official accreditation process. The curriculum that informationists must complete would include a "core of basic medical concepts, principles of clinical epidemiology, biostatistics, critical appraisal, and information management." With this foundation in place, the informationist would become valued as an individual with unrivaled expertise in the skills of "finding, extracting, and synthesizing information from the published literature."

This article generated a torrential response. Some of the strongest criticisms came from clinical librarians, who felt that the skills described by Davidoff and Florance were precisely the skills they already possessed [12]. These sentiments are understandable. However, it is important to remember that Davidoff and Florance were looking to build on the success of clinical librarianship. They were paying a compliment to clinical librarians, not discrediting them.

MLA has seriously grappled with the concept of the informationist/ISIC since the publication of this editorial. In April 2002, MLA organized an invitational conference to "facilitate a national discussion, derive a consensus definition, and develop recommendations for an action agenda for the 'informationist' professional in clinical and research domains" [13]. A key conclusion of the conference was that although a broad range of activities could comprise the work of an informationist, all informationists "must have knowledge about both a subject domain and the process of locating, analyzing, and synthesizing information" [14].

As a means of systematically analyzing the recommendations of the 2002 conference, in 2004, MLA contracted with Vanderbilt University's Eskind Biomedical Library to "explore evolving roles, create model programs, and *develop appropriate training paths* for what MLA is now calling the information specialist in context" [15] (emphasis mine). Although by this time the

concept has changed names and expanded beyond the clinical setting, Davidoff and Florance's core idea of a formal training program remains.

The Vanderbilt study is still underway at the time of this writing. As an interim study report, Nunzia Giuse, AHIP, director of the Eskind Library, at MLA '05, presented the results of a survey about the potential roles for ISICs. Giuse's remarks provided another confirmation that the ISIC is an individual who receives specialized training and possesses highly unique skills. A recent article published by Giuse and several librarians at Vanderbilt about Vanderbilt's Clinical Informatics Consult Service emphasized this point, by arguing that clinical informationists should "function as surrogates for clinicians" and possess "deep subject knowledge" [16].

When measuring my grant-related activities and overall knowledgebase against the vision of an ISIC, it becomes clear that my work is in a different category. I possess a layperson's medical knowledge and have not participated in the type of curriculum envisioned by Davidoff and Florance and currently under development at Vanderbilt. I do not mean to diminish my work on the grant in any way. It has raised the profile of the library and helped me to forge valuable relationships. But I am concerned that the overly broad use of the titles "informationist" or "ISIC" dilutes the power and intent of the entire concept.

My official status as an informationist represents a way to ensure that the library continues to be perceived as relevant in the digital age. It is a means of ensuring that the library would be a critical component of an important project at two NYU divisions, the School of Medicine and College of Dentistry. This is a goal that I completely support.

It is also a way to participate in the important activity of redefining what it means to be a health sciences librarian. It is no overstatement to claim that the Internet represents a disruptive technology of

the same magnitude as the printing press. Librarians know this, and we know that our expertise is as valuable as it was in the days of the card catalog. The concept of the informationist/ISIC is among the most cogent formulations of the continuing need for professionals with superior information-seeking skills.

When I keep this broader context in mind, I am much more at ease with my status as an informationist. But I am never completely at ease. If the curriculum structure and accreditation processes envisioned by Davidoff and Florance ever come into being, only selected individuals will be able to say with confidence that they are information specialists in context. This is as it should be.

If this curriculum and accreditation were a reality today, my title might be "special projects liaison" or perhaps the more impressive "library liaison to the Center for Health Information Preparedness." Either one would be sufficient.

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